

FIG. 1

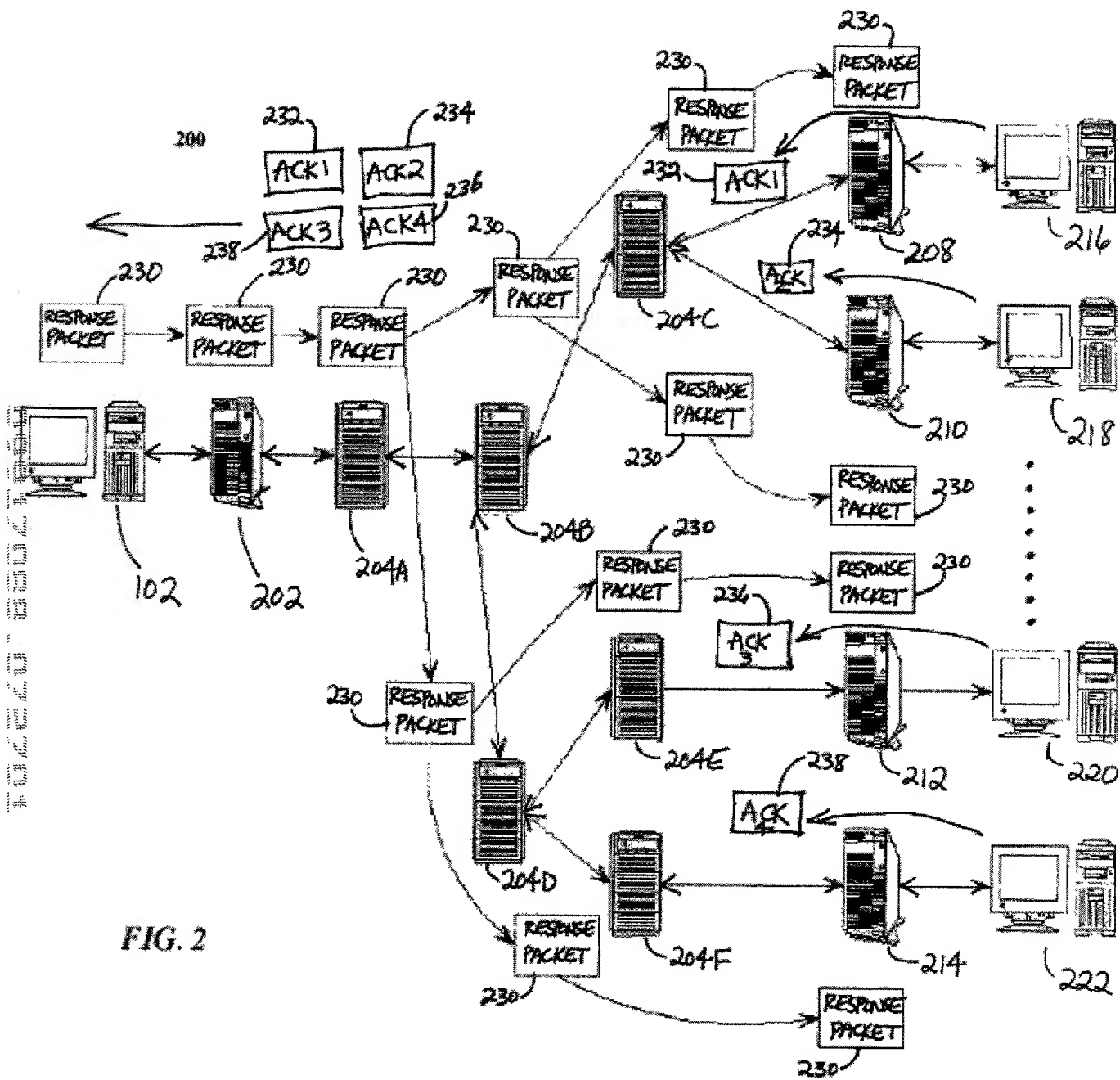


FIG. 2

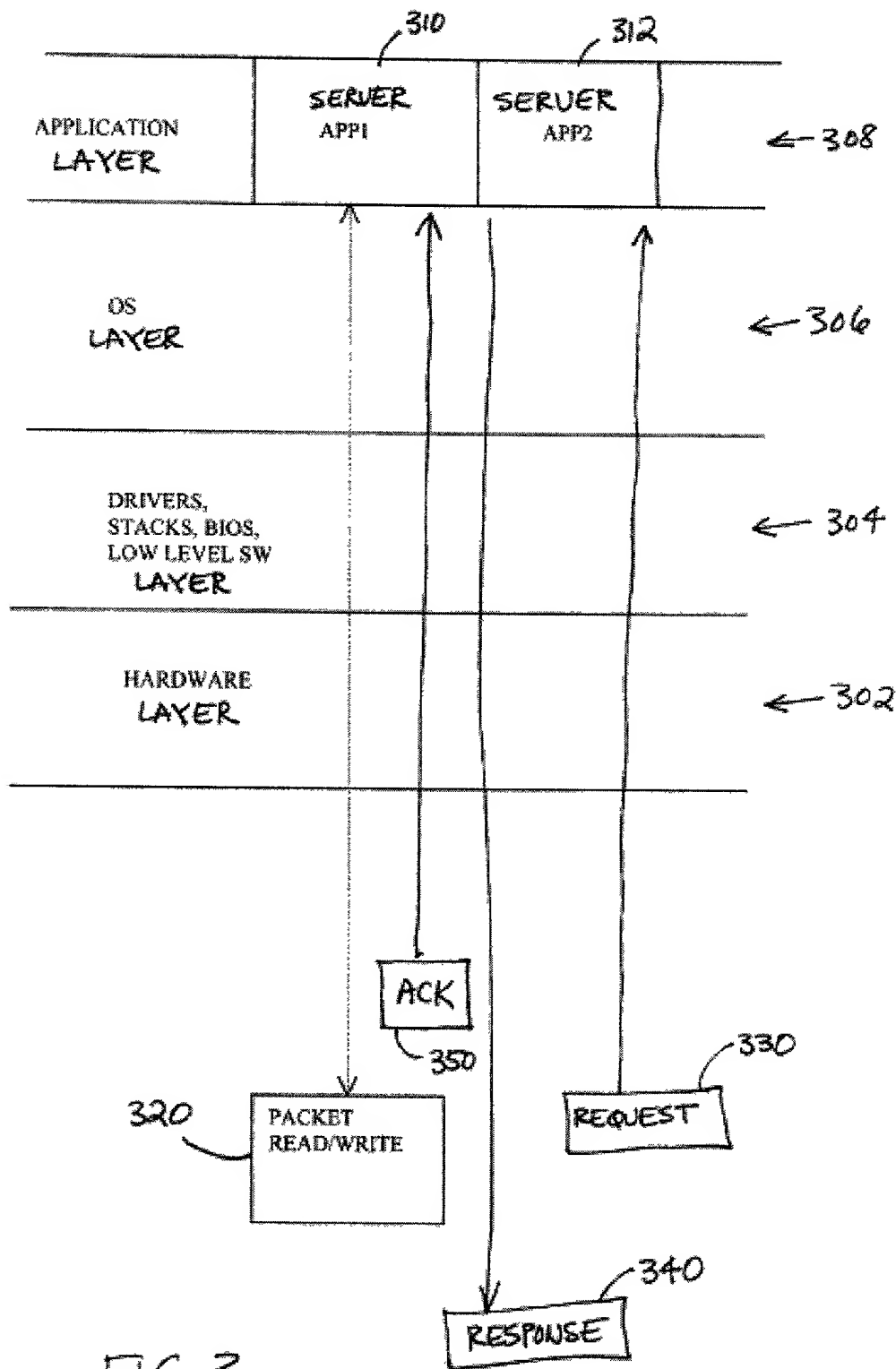


FIG. 3

402

Start

404

Read packets from an Ethernet adapter until either n packets have been read or until m milliseconds have passed.

406

Put each packet into a "bucket" with "similar" packets, where similar packets are defined as follows. Two http requests are "similar" if they are requests for the same content. Two "ACK" requests are "similar" if they "ACK" the same portion of the same content and request the same next portion.

408

When either n packets have been read or m milliseconds have passed, process each of the buckets as follows.

410

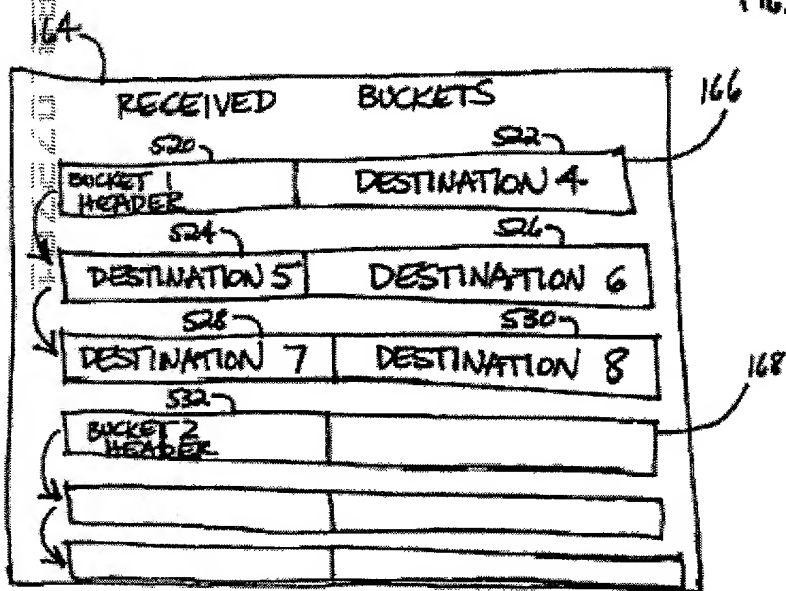
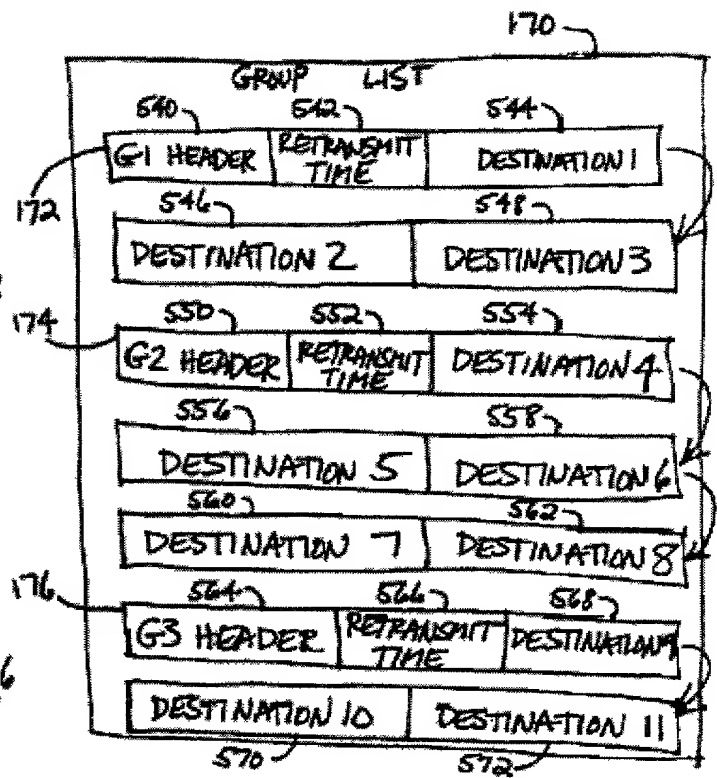
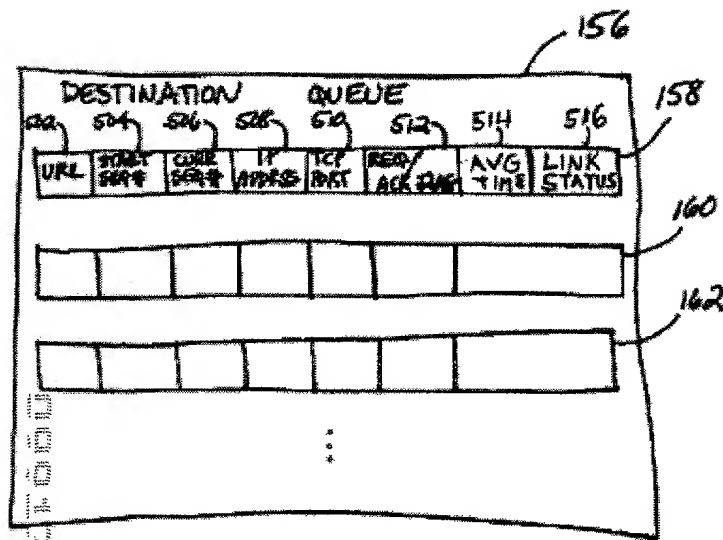
If a bucket corresponds to a new request, use a multicast transmission to send the first portion of the requested content to the destinations in the bucket. Divide the destinations into groups based on round-trip times.

412

If a bucket corresponds to an "ACK" then remove each destination from its current group and then use a multicast transmission to send the next portion of the requested content to the destinations in the bucket and then divide the destinations into new groups based on round-trip times.

414

Periodically check retransmit times of each group. If the retransmit time for a group has been exceeded then retransmit to that group and assign a new retransmit time to the group.



500

FIG. 5

FIG. 6

SLIDING WINDOW PROTOCOL

